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(54) **Title:** IONIC LIQUIDS FOR HETEROGENISING METALLOCENE CATALYSTS

(57) **Abstract:** The present invention discloses a method for preparing an heterogenised catalyst component comprising the steps of: a) providing a halogenated precursor component of formula (I) -X-[CH₂]CH₃ b) reacting the halogenated precursor with an ionic liquid precursor in a solvent to prepare an ionic liquid; IL⁺X⁻ c) optionally, reacting the intermediate IL⁺X⁻ with a salt C⁺A⁻, wherein C⁺ is a cation that can be selected from K⁺, Na⁺, NH₄⁺, and A⁻ is an anion that can be selected from PF₆⁻, SbF₆⁻, BF₄⁻, (CF₃SO₂)₂N⁺ClO₄⁻, CF₃SO₃⁻, NO₃⁻ or CF₃CO₂⁻. d) using the ionic liquid prepared in step b) to heterogenise a metallocene component of formula (II) Rⁿ (CpR^m) (Cp'Rⁿ) MQ₂ wherein Cp and Cp' are independently selected from substituted or unsubstituted cyclopentadienyl groups M is a metal selected from Group 4 of the Periodic Table, Rⁿ is a structural bridge imparting stereorrigidity between Cp and Cp' and Q is a halogen or an alkyl having from 1 to 12 carbon atoms; e) heterogenising the ionic liquid/metal system by addition of an apolar solvent inducing the precipitation reaction; f) retrieving a metallocene catalyst component heterogenised by an ionic liquid. It also discloses an active catalyst system heterogenised by an ionic liquid and its use in the polymerisation of olefins.